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Rorschach Responses Related to Vocational Interests and Job Satisfaction

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S. L. K.

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Chapter I

THE PROBLEM AND AIMS OF THE STUDY

Theories Respecting the Relationship Between Job Satisfaction, Personality, and Vocational Interests

The job, in our culture, has been variously described as a symbol of status, a source of self-respect, a fundamental basis for the formulation of values, and an important contributor to mental health. A modicum of satisfaction has been recognized as essential to the individual as one of the products of his work. Work satisfaction should be assessed in connection with interests and personality so that the contributions of each may receive proper emphasis. The relation of work satisfaction to the degree of personality adjustment and vocational interest has been speculated upon. In counseling situations, work dissatisfaction has often been ascribed to personality maladjustment, lack of appropriate vocational interests, or both. This point of view was demonstrated in a book devoted to this topic, with its principal conclusion that:

> Much of vocational maladjustment is merely an aspect of the still bigger problem of emotional maladjustment. The reason why this fact has not been adequately recognized by those interested in vocational adjustment is simple; just because he does not know, the individual seldom assigns the true cause as the factor underlying his vocational maladjustment. He is dissatisfied and simply because his work fails to give him the satisfaction he is seeking, he thinks his work is to blame (14, p. 21).

The same authors asserted that nine times out of ten the individual, who is more or less constantly in a state of excessive emotional tension, is vocationally maladjusted (14). Another study hypothesized that deep-seated personality maladjustment might cause individuals to be vocationally dissatisfied, despite their possession of vocational interests similar to those successfully engaged in the same occupation (50). Kimball Young has asserted that the emotionally maladjusted worker's inability

> to adapt himself to the demands of the world reflect back into himself in terms of thwarted wishes, unhappiness, and feelings of failure—a discrepancy between his achievement and his aspiration. And naturally such a person carries these attitudes or "emotional complexes" into new situations. Usually, the individual does not know why he is unhappy or dissatisfied or unsuccessful, and it is not uncommon for him to project blame for his maladjustment upon his job and the working situation (65, pp. 615-616).

Shaffer has averred that only lately has recognition been given to the viewpoint that much vocational dissatisfaction is due to the existence of general personal maladjustment in individuals (51, pp. 516-517). Quite recently, this topic has been discussed as follows: "The individual who is satisfied and adjusted with respect to his working situation is likely to be one who is well adjusted in his family, social and community life" (16, p. 448).

While not denying that personality maladjustment may cause job dissatisfaction, another view has been that either might cause the other and what would remedy one should remedy the other (25). Goodwin Watson's results did not support the contention that poor morale on the job was largely due to personal maladjustment (61). Kornhauser's opinion is that few workers were irremediably of low morale because of their emotional maladjustment, declaring that external variations are still influential (29).

Very little has appeared in the litera-

ture relating work satisfaction to measured interests. As Super has pointed out:

> In spite of the widespread acceptance of the hypothesis concerning the significance of vocational interests for personal and vocational adjustment, surprisingly little research has been done in the prediction of satisfaction (54, p. 364).

Strong utilized vocational satisfaction as one of the criteria of validity of his Vocational Interest Blank, stating "Its validity should be measured in terms of satisfaction not while the person is preparing for the work but later on while he is engaged therein" (52, p. 384). Darley reported that the "fulfillment of the interest type (on the Strong Blank) represented a personally satisfying adjustment for the individual", and that this type of satisfaction if realized on the job perpetuated itself and was an important phase of adult adjustment (9, p. 51).

The responses of the individual in terms of liking, disliking or indifference to the many items on an interest inventory are expressions of his drives and goals and give evidence of how he conceives of himself in relation to these (7, 50). Vocational interests have been conceived as distinct but integral parts of the basic personality structure, susceptible to the same influences (4).

The Problem: Aims of the Study

This study investigated the vocational interests, Rorschach responses, and job satisfaction of a group of workers employed by the Federal government and engaged in routine clerical work. It attempted to discover whether those who professed greater satisfaction with their work could be distinguished on the clerical scale of the Strong Vocational Interest Blank from those who indicated less satisfaction. At the same time, the question was raised whether the more satisfied clerks could be distinguished from the less satisfied by the number of Rorschach signs of adjustment as evaluated by two objective scoring techniques, the Davidson List of Adjustment Signs and the Munroe Inspection Technique. Information was also sought on the relationship of the clerical scores on the Strong Vocational Interest Blank to the number of Rorschach signs of adjustment and maladjustment as appraised by the Davidson List and the Munroe Inspection Technique. The study included an attempt to ascertain which, if any, of the specific Rorschach responses were related to work satisfaction. Finally, there was an exploration of the relationship of Rorschach responses of routine clerks to their scores on the Strong Vocational Interest Blank, clerical scale.

Succinctly stated, this study undertook to discover the interrelationships among such factors as job satisfaction, vocational interests, and Rorschach signs of maladjustment. Those Rorschach responses, if any, that were significantly related to job satisfaction and vocational interests, were segregated.

The following hypotheses were set up to be tested:

1. Job satisfaction in clerical work bears a significant positive relationship to scores on the clerical scale of the Strong Vocational Interest Blank. Those clerks who possess interests similar to those of successful office workers tend to be more satisfied.

2. Job satisfaction in clerical work is not related to Rorschach signs of maladjustment. The degree of job satisfaction of clerical workers is independent of the number of Rorschach signs of maladjustment.

3. The work dissatisfaction of routine clerical workers who possess the interests

of successful office workers is not related to the number of Rorschach signs of maladjustment.

4. Certain Rorschach responses, evidenced in the records of routine clerical workers, are significantly associated with their possession of vocational interests similar to those of successful office workers.

Chapter II

SURVEY OF THE LITERATURE

Previous Investigations Related to This Study

THE literature relative to job satisfaction, vocational interests, personality and Rorschach responses, when each of these is considered independently, is so extensive that it would be impractical to present a complete survey. Readers seeking fuller discussions on job satisfaction are referred to Hoppock and collaborators (18, 25); on the Strong Vocational Interest Blank, to Strong (52) and Carter (8); on the Rorschach Test, to Klopfer (28), Hertz (20, 23), and Beck (1).

Job satisfaction has been discovered to be associated with: occupational level (53), a sense of fulfillment in constructive work (13), and the fulfillment of the social demands of the individual (48). The evidence has been conflicting on the relationship of age to job satisfaction (30). No one single factor or group of factors operated alone in creating satisfaction, but it has been recognized that workers reacted to their understanding of the whole situation (29).

Darley apparently confirmed his hypothesis that interest types are related to the development of personality in his study of 1000 subjects (9). The significance of some pertinent investigations of the relationship between vocational interests and personality has been undermined: (*a*) by the use of subjects who were not working, and (*b*) by the inclusion of occupations, under one interest type, that are probably dissimilar in many traits, e.g. artist and physicist, and correlating the scores on the interest type scale with personality measures.

Dodge concluded that the more successful clerical workers in their self-evaluations seem to be less ready to assume responsibility, less at ease in social contacts, and more dependent upon others than the less successful workers (11, 12), within routine work situations. There was a marked tendency for psychoneurotic ex-soldiers to drift into clerical work after failing to adjust in other types of employment (44).

Occupational dissatisfaction has been found to be associated with a lack of primary interest pattern in the current occupation as measured by Strong's Blank (50). Eighty-two percent of 241 college graduates who entered occupations for which high scores were earned on the Strong Vocational Interest Blank were satisfied (34).

Previous Investigations Related to the Tests Used in This Study

Rorschach Test

While the Rorschach method has become one of the most popular instruments for assessing the whole personality, much doubt has been cast upon its validity and reliability as a personality test. Experimental evidence of the validity of the Rorschach method has been gained by giving this test under experimentally altered conditions and demonstrating its extreme sensitivity to changing conditions, attitudes, or emotional states (32). Others have compared the Rorschach results with outside criteria and have demonstrated marked agreement (6, 40). The case for the validity of the Rorschach Group Test rests upon the evidence for the individual test (23, 24, 33). The reliability of the Rorschach Test has been studied using both test-retest and split-half methods, with results permitting conflicting interpretations (15, 19, 20, 27, 55, 59).

The psychological significance of the Rorschach movement (M, FM) and the color (FC, CF, C) responses has not been subjected to careful validation, and these responses or categories have unfortunately been accepted and used by many Rorschach workers despite the lack of demonstrated validity (22). There has been essential agreement in the meanings assigned to the Rorschach human action (M) response (22, 28, 49). The results of studies that correlated the Rorschach Test responses with personality inventories are in disagreement with the concept of the human action (M) response as an indicator of maturity (21, 60). The validity of the human action (M) response has been purportedly demonstrated by hypnosis (31), while some reliability coefficients for this Rorschach response have been ascertained to be .62 (59), .75 (20), and .52 (27).

Again, there has been essential agreement on the psychological significance of the Rorschach animal action (FM) response (28), and the Rorschach color (FC, CF, C) responses (6, 28, 49). There has been some evidence that emotional stability and adaptability varied directly with the excess of definite form-color (FC) responses over indefinite (CF) and exclusive color (C) responses (21). There has been no confirmation that more human action (M) than animal action (FM) responses imply maturity (21, 60). Reliability of color responses in the Rorschach

Test has been ascertained as .34 (59), .81 (20), .69 (15), and .68 (55). No apparent reason seemed to explain these discrepancies.

The Munroe Inspection Technique

The Munroe Inspection Technique (40) is an objective method of evaluating Rorschach responses that yields numerical ratings indicative of the degree to which these responses deviate from what has been empirically determined to be adequate. By means of the Munroe Inspection scores, Munroe was able to discriminate with a high degree of accuracy between students who were poorly adjusted and those who were adequately adjusted (40). Roe's investigation demonstrated that while the usual methods of Rorschach Test analysis were unsuccessful in picking out the excessive drinkers, the application of the Munroe Inspection Technique brought out clear differences (45). For 250 college and high school students, there was good correspondence between the Munroe Inspection score and the degree of maladjustment as determined by external indices (38). Fifteen "problem" students selected independently of the Rorschach Test had an average Munroe Inspection score of 7.9 with a range of 5-10. A group of students selected as unusually well adjusted, had an average score of 2.6 on the Munroe Inspection List with a range of 1-4 (36).

The Davidson List of Signs

The Davidson List of Signs was established on a group of 102 superior children (10). Margulies, using the Davidson List of Signs, was able to distinguish between scholastically successful and scholastically unsuccessful boys of equivalent intelligence (35).

The Strong Vocational Interest Blank

The Strong Vocational Interest Blank has been called the "outstanding device of its kind" (8 p. 14). For the appraisal of a vocational interest test, Strong asserted that he could think of no better criterion than that of satisfaction enduring over a period of time (52). Carter furthermore stated that the real purpose of the vocational interest inventory is to predict vocational satisfaction and to indicate vocational preference (8). Strong has stated that those who are satisfactorily adjusted in an occupation may be differentiated by the test from those who are not satisfactorily adjusted and from those not engaged in the occupation. Due to the inadequacy of measures of work satisfaction, Strong has assumed that continuance in an occupation is a measure of satisfactory adjustment, and if a person progressed on his job and was reasonably satisfied he was well adjusted vocationally (52). A test-retest correlation of .59 following an interval of three years was found for the Strong office worker key (58). Strong's reliability coefficient after a five-year interval for the office worker scale was .74 while the odd-even technique yielded a coefficient of .88 (52).

The Job Satisfaction Blank

The blank (Appendix A) used in this investigation was almost identical to that devised by Hoppock for his study of job satisfaction (25). This blank required the subject to evaluate his feelings about the job as a whole. Having the subject do so placed the responsibility upon him of weighing all the job factors. Morale or satisfaction with work was exclusively the sum of attitudes toward work situations and it was not known which of several aspects of a job denoted morale (63). A forty-four item questionnaire, sampling almost every area of the subject's work environment, produced substantially similar results in terms of job satisfaction as did one item requesting the subject to evaluate his feelings of satisfaction with the job (17).

The split-half reliability of the job satisfaction blank was .93 after correction by the Spearman-Brown formula from a raw correlation of .87 (25). Berdie ascertained that the reliability coefficient, also split-half, was .97 (3). The writer carried out a study of 60 subjects who answered the job satisfaction blank at intervals of three weeks. A test-retest reliability coefficient of .90 was obtained.

Chapter III

SELECTION OF SUBJECTS AND TESTS AND METHODS OF GATHERING DATA

Selection of Subjects

THE subjects for the study were chosen with a view to keeping to a minimum the variations in factors, other than the experimental ones, which might affect job satisfaction. The choices which were made, and the reasons for them, were as follows:

1. A group of men was used, because earning a living more clearly represents a permanent activity for them.

2. All subjects came from the same occupational group so as to eliminate the effect upon job satisfaction of differences between occupations.

3. All subjects enjoyed, presumably, the same general physical working conditions so that dissimilarities in conditions that might influence job satisfaction were held to a minimum.

4. All subjects earned annual salaries that did not vary too greatly so that the effect of salary differences upon job satisfaction was minimized.

5. The subjects, for practical considerations, were engaged in an occupation for which a scale on the Strong Vocational Interest Blank had been established.

One hundred male routine clerical workers employed in one establishment of the United States Government were selected.

No selective factor was apparently operative in the choice of these subjects. Virtually all the male office workers within one administrative department were asked by the department head to report for the testing required for this study. There was no coercion. All those who wished participated. Many factors operated to bring about 100 percent cooperation. First and most important, neither the subject nor his test results could be identified by the examiner. The subjects drew their test blanks in random order from the stack. Only numbers appeared on the papers. The appeal of one of the tests was great, due to the publicity given by many popular magazines and a recent moving picture. Others reported because it provided a welcome adventure during working hours away from their work duties. And finally, the spectacle of many of their work intimates eagerly volunteering impelled many others to present themselves. Sufficient time off from work was permitted so that there was no need for haste in taking the examination. None of those who had been employed for less than six months were included.

The subjects averaged 29.7 years of age and had completed 12.1 years of schooling, as compared with Strong's criterion group for office workers which averaged 33.2 years of age and had attained a mean of 11.5 years of education (52). Only one routine clerk had completed no more than elementary school while four subjects had finished four years of college. Two clerks had one year of high school, eight had two years, thirteen had three years, while fifty-one completed four years of high school. There were eleven with one year, seven with two years, and three with three years of college work.

Ninety-two percent of the routine clerks were born in this country with 74 percent giving New York City as their birthplace. Only eight other states were represented. Of the eight percent who were of foreign birth, two percent each were born in Russia, Poland, Germany; and the British West Indies. All were citizens of the United States. Thirty-three percent of the subjects' fathers were born in this country. Italy as the fathers' birthplace accounted for 36 percent with Russia having 15 percent. The British West Indies was represented by five percent and Poland had four percent. Norway, Hungary and Germany each showed two percent while Austria had one percent.

Utilizing the occupational scale devised by Beckman (2), the fathers' occupations were classified as follows: Grade I—Unskilled Manual Occupations, Grade II—Semi-Skilled Occupations, Grade III—Skilled Manual and Skilled White Collar Occupations, Grade IV—Sub-Professional, Business and Minor Supervisory Occupations, Grade V—Professional, Managerial, and Executive Occupations. This scale, according to the originator who cited evidence, indicates the rank and the socio-economic prestige attached to a given occupation based on intelligence, skill, education, and training required for its pursuit. The occupations of the fathers of these clerks were distributed among the following grades in this proportion: Five percent were in Grade I, seven percent were in Grade II, 78 percent in Grade III, six percent in Grade IV, and four percent in Grade V. Three of the four in Grade V were musicians. The great majority of the subjects' fathers had been or were engaged in skilled, manual or white collar occupations. The aforementioned facts should provide a framework for understanding the socio-economic background of

these subjects and for evaluating results of this study.

The subjects were classified under Federal Civil Service principally as clerks, 10 as CAF-2, and 87 as CAF-3 clerks, with just three in the CAF-4 category. The salary ranges were from $2300 to $2850 per annum with 95 percent of the clerks earning between $2400 and $2700 yearly. Each subject was entitled to salary increments for each eighteen months of satisfactory service. Their duties, as specified by the Civil Service announcement, were clerical. A more detailed description of their duties might afford a more appropriate perspective with which to view the results of this study. Within one sub-group, the clerks were charged with dealing with forms embodying requests for aid, routing these forms, submitting these written requests to the professional staff for attention, and issuing the necessary written authorizations. Another sub-group of clerks maintained personnel records and requisitioned supplies. An additional sub-group devoted themselves to the processing of requests for payment of services furnished by outside agencies. The voucher subgroup maintained the master control cards, governing the reimbursement limitations for use of community resources. The eligibility unit, in which group there were many subjects, determined the eligibility of applicants for assistance from office records, and took the necessary action relating to these applications pertaining to eligibility. Several were engaged in stenography, working for the sub-group administrators. Other subjects dealt with the routine collection of data and statistics. There was great flexibility in the assignment of these subjects to various tasks. As the deputy administrator directly in charge of personnel allocation stated, "If a man does not care for his work or finds it boring, we make adjustments. We transfer him to other types of work. We have never told a man this is your work—you have to do it or else." The kind of work these clerks did was routine, but vital to the functioning of the organization. They had supervisors with whom they conferred if the matter required any judgment or decision not covered by procedure. Typing, filing, sorting, checking through records, stenography, maintaining records, and other related duties were required.

Many of the routine clerks, generally, seemed to like their fellow workers. One clerk, a stenographer, stated that he found the professional people very congenial to deal with. Other clerks agreed with him and indicated that the professional workers treated them as equals. Others stated there was a pretty wholesome relationship with the professional personnel. A few clerks exclaimed about the pettiness of the supervisors and the unfairness of the efficiency ratings. Some echoed one clerk's declaration that "if I want to stick around and get along, I'd better keep quiet." A small number indicated that personal worth was not appreciated. A few felt that they were underpaid for the jobs they performed. One clerk bitterly stated that the other clerks "don't have a mind of their own. They are willing to be led around." Despite a few such adverse indications, many objective signs of favorable work conditions were in evidence, such as an informal atmosphere, low turnover, and few disciplinary actions. Ample opportunity existed for transfer to more congenial work duties and surroundings, if desired. On the whole, it appeared that the clerks performed their routine duties in rather congenial working conditions.

The Tests

The Rorschach Test

The Rorschach Test, developed by Herman Rorschach (49), consists of ten standard inkblots, five gray and black and five colored cards. This test has become increasingly popular as an aid to differential diagnosis in clinical situations. It has been used in such fields as anthropology, social case work, sociology, penology, educational and vocational guidance, and personnel selection. It has been assumed by many that the mental procedure which the individual has adopted and the emotional reactions which he has displayed in the Rorschach situation have operated similarly when he met other life situations. In his Rorschach Test reactions he has been thought of as giving a small scale sampling of his characteristic behavior (22). Results have been obtained which, within certain limits, could be subjected to statistical study and analyzed qualitatively to portray the presumed dynamics of personality or behavior (22). One writer has declared that the Rorschach method has resulted in a configurational picture which has revealed the interplay between various major intellectual and emotional factors in the personality of the subject (28). It has been asserted by some that the personality of the individual, revealed in his projections or reactions, can be reconstructed by the experienced Rorschach examiner who can gain knowledge of mental procedures, motives, interests, desires, fantasy life, emotionality, ability, and the like (1, 22, 28); others, on the other hand, have pointed out the need for caution in interpreting Rorschach responses, because of the subjectivity of most of the evidence on which interpretations have been based (22, 66). For this reason, this study has utilized the Rorschach only as an instrument yielding certain objectively measurable indices, which might be related to other variables such as inventoried interest and expressed job satisfaction.

The Munroe Inspection Technique.

As an important outgrowth of her study of the validity of the Rorschach as a "clinical" method, Munroe (40) has developed a special and relatively objective procedure for dealing with Rorschach protocols, which she has termed the *Inspection Technique*. In her preface, Munroe has stated:

For the single purpose of providing a measure of what—for want of a better word—we have called adjustment it seems probable that the Rorschach can be handled like an ordinary psychological test with the customary attention to set scoring standards and with at least very important reduction in the role played by the judgement of the examiner. Moreover, the measure of adjustment can be expressed quantitatively either as a rating or (probably) as a score obtained by adding up the entries made on a prepared check list (40, p. 6).

The quantitative measure of Rorschach adjustment in this study was obtained by evaluating the Rorschach records of the 100 routine clerks on the basis of the revised Munroe Inspection Technique (37). This check list consisted of the major categories commonly used in Rorschach scoring and for Rorschach interpretation. Each category had fixed limits for what have been clinically considered as "normal" Rorschach responses by Rorschach examiners. Specific numbers of entries were made for each category according to the extent of deviation from these "normal" limits.

Rorschach areas of "adequate" functioning included those responses that were within the empirically established "normal" range of Rorschach responses as shown in each of the categories on the Munroe Inspection List. Clinically, these responses have been found to carry no indications of personality maladjustment. The subject's performance within specific categories or areas was examined to see if it was within the predetermined "normal" range. If within "normal" limits, no entry was made for that specific Munroe category. This meant that the performance of the subject with regard to that Munroe category was "adequate." "Adequate" will have this meaning throughout the study when applied to Rorschach scores.

Rorschach areas of maladjustment embraced those responses that were evaluated as falling outside the empirically established "normal" range of Rorschach responses for each of the separate Munroe Inspection List categories. The degree of deviation of these responses from the predetermined "normal" range was handled by making one, two, or three entries for the particular Munroe Inspection List category. The sum of the entries (or the scores) on the Munroe list for each subject will be referred to throughout the study as the subject's Rorschach signs of maladjustment. Each of the categories in the Munroe Inspection Technique was evaluated in relation to the Rorschach performance of the subject as a whole. A low score on the Munroe Inspection List showed that the subject had given few responses clinically considered to be indicative of maladjustment. A high score on the Munroe Inspection List signified that there were many areas in which he displayed many deviations from the clinically established "normal" range.

The instructions set forth for using the Munroe Inspection Technique were followed in this investigation. Although Munroe emphasized the importance of using clinical judgment in the event that a percentage approached significance in terms of plus, minus, or check scores, the writer decided to adhere strictly to the arithmetical limits for making the number of entries set forth in the directions for the application of the check list. The value of the writer's procedure in terms of making the Munroe Inspection List a more objective measure of Rorschach adjustment was considerable. Also following the Munroe Inspection Technique instructions, another qualified Rorschach examiner and clinical psychologist (Miss C. Mildred Ceres) independently evaluated the protocols. The agreement of the Munroe Inspection scores that she obtained with those obtained by the writer was considerable, the correlation coefficient being .94. It was believed that the merit of this result offset the few advantages that using clinical judgment might have brought.

The Davidson List of Signs.

A high score on this list signified having many Rorschach signs of adjustment while a low score meant the lack of possession of Rorschach signs of adjustment. The Davidson List of Signs (10) was introduced into this investigation to ascertain the extent to which it yielded results similar to those obtained by the Munroe Inspection Technique. It was not as extensive as the Munroe Technique nor did it attempt to distinguish as finely between the differences in quality and quantity of Rorschach responses as did the Munroe. Finally, the Davidson List operated on the principle of the presence or absence of Rorschach signs of adjustment while the Munroe Technique assigned specific values to the degree of presence or absence of specific Rorschach factors of maladjustment.

Procedure Followed for Administering the Rorschach Test.

The procedure followed for administering the Rorschach Test was as follows: Each subject was given a set of Rorschach cards arranged in

order, face down, and the instructions suggested by Klopfer (28) were followed, substituting the words "write out" for "tell me." All answers were written in a special booklet with each subject taking as much time as necessary with each of the cards, turning each card if he so desired and was so inclined. After the subject had responded to all the cards, an individual inquiry was conducted with each subject separately so that most of the essential features of the standard individual Rorschach procedure were retained. The subjects were tested in groups of four or five and adequate supervision was provided by the presence of at least two examiners.

The Strong Vocational Interest Blank

The Strong Vocational Interest Blank was utilized to measure the similarity of the vocational interests of the 100 routine office clerks to those held by successful office workers. The standard procedure as prescribed by Strong (52) was followed. This blank consists of 400 items which included names of occupations, school subjects, amusements, activities, peculiarities of people, order of preference of activities, types of famous persons most preferred, choice between two paired activities, and self ratings of present abilities and characteristics. The items were marked according to one's likes, dislikes, indifferences, choices, and preferences. The occupational scale for the general office worker, as for the other occupations, was obtained by contrasting the responses of the criterion group to the 400 items of the blank with those of the men-in-general group, and assigning relative weights to those items that displayed substantial differences. The raw score, obtained by the subject, is the sum of weights he earned on the office worker scale of the Strong Blank, which sum might be positive or negative. The raw score was converted into a standard score which indicated just where the subject placed with respect to the distribution of scores of the criterion group on that scale. The score earned on the general office worker scale was a measure of how similar the subjects' interests were to those of the average successful office workers. A high score signified that the subject possessed interests similar to the successful office worker. A high score was said to be associated with long continued employment and with occupational adjustment and a low score was said to typify the reverse conditions (52). Strong indicated that there was surprising permanence of interests found among adults when vocational interest was defined not as a single selection but as the sum total of many interests that bore in any way upon an occupational career (52). Strong has stated, "men engaged in occupations so far studied have a characteristic pattern of likes and dislikes which differentiates them from men in other occupations" (52, p. 47).

The Job Satisfaction Blank

The job satisfaction blank (Appendix A) was modeled after and differed very little from that devised by Hoppock (25). This blank consisted of four questions, each having seven possible alternatives. These questions required that the subject evaluate himself in connection with how well he liked his job, how he compared with other people in his liking for his job, how he felt about changing his job, and how much of the time he felt satisfied with his job. Job satisfaction had been defined as any combination of circumstances, psychological, physiological, and environmental that made a person state truly, "I am satisfied with my job" (25, p. 47). By having the subject explore and evaluate his feelings in response to the four questions on the aforementioned blank, it was believed that a valid measure of his job satisfaction would be obtained. Rationalization and self-deception may have negated to some extent the subject's own estimate of his job satisfaction. Nevertheless, what the subject thought and felt about his job must necessarily be real despite the origin of such feelings. It was these subjective feelings that this study endeavored to ascertain so that they may be related to the other measures of the individual's functioning—the Strong Vocational Interest Blank, and the Rorschach Test. As Horst has declared, success in an activity may be considered in terms of the satisfaction derived from participation in the activity by the person engaged therein (26). In the majority of prediction studies, however, measures of success have been defined largely in terms of achievement or conformity to norms set by others, rather than in terms of the effect of the activities on the person engaging in them (26). Situational factors, Horst added, must be understood in the way they were defined by the individual himself (26). A true estimate of job satisfaction must come from the subject, notwithstanding the degree of his indulgence in rationalization and falsification.

The score on the job satisfaction blank was the sum of the separate weights for each of the four questions. Each question was given a weight equal to the number of the alternative that was marked by the subject. Hoppock used this method for arriving at job satisfaction scores after discovering that a more complicated and ostensibly more accurate method of assigning weights gave almost identical results, the correlation between the two methods equaling .98 (25). Scores could range from a theoretical low of 4 to a theoretical maximum of 28.

Chapter IV

RESULTS

Job Satisfaction Measurement

The range of scores of routine clerks on the job satisfaction blank was from 7 to 26, signifying that there were subjects who were intensely satisfied with their jobs as well as greatly dissatisfied. The mean of the group was 17.49 points and the standard deviation was 3.80. Table I gives the distribution of the job satisfaction scores. The group median fell at 18, while the mode was 16, the latter score having the top frequency of 17. After arbitrarily fixing 18 as the lowest score indicative of satisfaction, it was noted that 53% of the routine clerks achieved that score or higher. The percentage of the indifferent, those earning scores of 14 to 17, was 33, whereas the dissatisfied, those with scores of 13 and below, constituted 14 percent of the group.

TABLE I

Distribution of Job Satisfaction Scores

Score	Frequency
7 to 10	6
11 to 13	8
14 to 15	10
16 to 17	23
18 to 20	31
21 to 23	18
24 to 26	4

$N = 100$ Clerks
Mean = 17.5
Standard deviation = 3.8

A certain minimum of intelligence might be prerequisite for satisfaction in any occupation. Uhrbrock has shown that there was a small insignificant negative correlation (—.14) between job satisfaction scores and Otis intelligence scores of 99 clerks (57). Probably, once the minimum intelligence level for an occupation was surpassed, additional increments of intelligence had little effect. The number of years of education of the clerks under current investigation was correlated with their job satisfaction scores and the resulting correlation was —.12, agreeing substantially with Uhrbrock (57). No relationship, hence, for routine clerical workers seemed to exist between job satisfaction and education.

Strong Vocational Interest Scores

The scores on the office worker scale of the Strong Blank ranged from 22 to 64. (The standard scores were utilized instead of raw scores due to the occurrence of many negative scores.) The mean score fell at 44.7 with a standard deviation of 9.7 (Table II). This was compared with the mean score of 50 and standard deviation of 10 of the office workers used by Strong as his sample. A difference significant at the 1 percent level existed between the means of the two groups. When the distributions of both groups according to letter ratings were contrasted, a difference significant at the 1 percent level was revealed (Table III). Both means and the letter grade distributions of the two groups were significantly different. Strong's sample of 326 workers, drawn from all parts of the

TABLE II

Distribution of Strong Vocational Interest Clerical Scale Scores and Ratings

Standard Score	Rating	Frequency
22 to 24	C	2
25 to 29	C+	7
30 to 34	B−	8
35 to 39	B	14
40 to 44	B+	11
45 to 49	A	19
50 to 54	A	27
55 to 59	A	7
60 to 64	A	5

$N = 100$ Clerks
Mean Score = 44.7
Standard deviation = 9.7

TABLE III

CLERICAL INTEREST RATINGS OF 100 ROUTINE CLERKS AND THE CRITERION GROUP ON THE STRONG BLANK

Group	Letter Ratings			
	A	B+	B	B−, C+, C
Routine Clerks	58	11.0	14.0	17.0
Criterion Group	70	12.3	9.8	7.8

Chi-square = 14.84 3 degrees of freedom
Significant at the 1% level

United States, was composed of 214 office clerks, bookkeepers, stenographers, 92 office managers, and 20 credit managers. Age and educational level of the two groups were about the same or equal. More than one third of Strong's group were subjects charged with the responsibility of making decisions, using initiative, or carrying on administrative duties.

RELATIONSHIP BETWEEN JOB SATISFACTION SCORES AND VOCATIONAL INTEREST SCORES

The correlation coefficient between job satisfaction scores and the scores on the clerical scale of the Strong Vocational Interest Blank was .21. This correlation was not significant at the one percent level but was significant at the five percent level. For this particular group of clerical workers, there was only a slight relationship between degree of satisfaction with a routine clerical job and the score on the clerical scale of the Strong Blank. Vocational interests similar to those of office workers could be a factor contributing to satisfaction with routine clerical work but to a slight degree only. The partial correlation between job satisfaction scores and Strong clerical interest scores with the Munroe Inspection Technique total adjustment scores held constant, was .22. This latter coefficient was not significant even at the five percent level. Hence, there was no evidence to support a relationship in this group of routine clerks between job satisfaction scores and Strong clerical interest scores when Munroe Inspection scores were held constant.

Strong stipulated that the criterion of validity for his test was not a high degree of job satisfaction but "reasonable" satisfaction in contradistinction to indifference and dissatisfaction (52). A threefold division of job satisfaction was made by assigning all scores of 18 and above to the satisfied group, scores of 14 to 17 inclusive to mark indifference, while scores of 13 or below typified dissatisfaction. Following Strong's definition that all those with A and B+ scores were to be considered as possessing interests similar to those of the average successful office worker, the group was dichotomized into those achieving A and B+ scores and those who did not. Table IV shows the distribution and the chi-square value of 2.89, with 2 degrees of freedom. There was no evidence that vocational interest scores were related to job satisfaction ratings. While there was a very slight tendency for numerical values indicative of vocational interest and job satisfaction to be correlated, when these measures were divided into meaningful categories no evidence for them to be related was found. Analysis of variance

TABLE IV

DISTRIBUTION OF THE STRONG CLERICAL INTEREST RATINGS MADE BY 100 CLERKS ACCORDING TO THEIR JOB SATISFACTION RATINGS

Clerical Interest Ratings	Job Satisfaction Ratings		
	Dissatisfied (0 to 13)	Indifferent (14 to 17)	Satisfied (18 to 28)
A and B+ (40 and over)	7	23	39
B, B−, C+, and C (39 and less)	7	10	14

Chi-square = 2.89 2 degrees of freedom
Not significant at the 5% level

also disclosed that there was no evidence for a significant difference between the clerical interest scores of satisfied, indifferent and dissatisfied routine clerks (Table V).

JOB SATISFACTION AND RORSCHACH RESPONSES

Job Satisfaction Scores and Davidson List of Adjustment Signs

Each of the Rorschach protocols of the 100 subjects was scored according to the system utilized by Klopfer (53). The protocols were evaluated on the basis of 16 of the 17 signs on the Davidson List (10). The sign, total number of Rorschach responses equal 20, was eliminated because there was some evidence that the conditions of group Rorschach administration, followed in this study, might have militated against the production of 20 or more responses (24). The mean number of Davidson adjustment signs for the clerical group was 7.91, the standard deviation 2.31. This fell between the mean of 6.85, standard deviation 2.27, made by scholastically unsuccessful boys and the mean of 9.05, standard deviation of 2.70 of successful boys (35). While the routine clerks were not too different from Margulies' (35) total group of children, when compared with Davidson's original group of 102 superior children (10), the routine clerks were shown to have fewer Rorschach signs of adjustment, 7.91 versus 10.31. Tests for the significance of the differences between the means were not made because of the difference in age of the groups and the omission of one sign of the Davidson List.

The coefficient of correlation between the job satisfaction scores and the total number of Davidson signs of Rorschach adjustment was −.16. As this coefficient was not significant, there was no evidence

TABLE V

ANALYSIS OF VARIANCE OF STRONG CLERICAL INTEREST SCORES OF 100 CLERKS DIVIDED ACCORDING TO SATISFIED, INDIFFERENT, AND DISSATISFIED JOB RATINGS

Source	d.f.	Sum of Squares	Mean Squares	*F*
Between Means	2	497	248.5	
Within Groups	97	8907	91.5	2.7

F is not significant at 5% level

of a relationship between self-evaluation of job satisfaction and the number of Davidson signs of adjustment. Satisfaction with routine clerical work and the Rorschach responses believed by Davidson to be indicative of adjustment did not appear to be related.

Job Satisfaction Scores and Munroe Inspection Scores.

The Munroe Inspection Technique "total adjustment" score indicated the number and extent of the deviations of the Rorschach Test responses of a subject from those of the empirically established Rorschach norms. The higher the score, the more numerous the Rorschach responses considered indicative of maladjustment. The lower the score, the more normal the performance of the subject on the Rorschach. The mean "total adjustment" score of the clerks on the Munroe Inspection Technique was found to be 12.96 with a standard deviation of 4.40. Scores ranged from a low of 2 to a maximum of 23. The mode fell at two scores, 12 and 13 (Table VI). The median score was 13. Eighty college students studied by Munroe (39) earned an average score on the Munroe List of 9.0, with the median about the same, and their range was 2 to 17. Roe found that the average Munroe Inspection score for a group of artists was 10.3, and that the range was 3 to 18 (46). Scientists averaged 7.7 signs, with a range of 1 to 15, and technicians scored a mean of 9.4 signs with a range of 2 to 19 (47). It can be readily seen that the routine clerks now under study have consistently more Rorschach signs of maladjustment than the other groups. These studies did not report sufficient data for tests of significance.

TABLE VI

DISTRIBUTION OF MUNROE INSPECTION TECHNIQUE SCORES FOR 100 CLERKS

Score	Frequency
2 to 4	2
5 to 7	8
8 to 10	18
11 to 12	17
13 to 15	28
16 to 18	16
19 to 21	7
22 to 23	4

Mean = 12.96
Standard deviation = 4.4

It seemed desirable to learn if the Munroe Inspection Technique utilized by another psychologist would yield similar results when applied to the Rorschach protocols. Following the scoring of the Rorschach protocols according to the customary Klopfer method, thirty of them were submitted to a clinical psychologist, experienced in Rorschach examination (Miss C. Mildred Ceres). She independently rechecked the writer's scoring, making alterations and changes, when necessary, and, without knowledge of the writer's Munroe Inspection Technique scores, evaluated each of the protocols based on this technique. The above procedure was followed to appraise the reliability and similarity of the Munroe Inspection Technique scoring rather than the reliability and similarity of the general Rorschach scoring. The coefficient of correlation between the independently computed Munroe Inspection Technique scores was .94, with perfect agreement in 30 percent of the records. Thirty percent of the records differed by 1 entry, 33 percent of the records differed by 2 entries, and seven percent differed by 3. No score differed by more than three. The writer's own reliability coefficient was .96 for the first 20 records rescored after an interval of three months.

The coefficient of correlation between the job satisfaction scores and the Munroe Inspection scores was calculated to be .02, which was not significant. The partial correlation coefficient between these two variables with Strong clerical interest scores held constant (−.06) was not significant. The Rorschach signs of maladjustment, as appraised by the Munroe Inspection Technique, were not related to job satisfaction scores. This

TABLE VII

ANALYSIS OF VARIANCE OF JOB SATISFACTION SCORES OF 100 CLERKS DIVIDED ACCORDING TO RELATIVELY FEW (0 TO 10), MODERATE (11 TO 15), AND MANY (16 AND OVER) RORSCHACH SIGNS OF MALADJUSTMENT ON THE MUNROE INSPECTION LIST

Source	df	Sum of Squares	Mean Square	*F*
Among Means	2	17.47	8.74	
Within Groups	97	1427.53	14.72	0.59

F is not significant at 5% level

result confirmed the result reported above with the Davidson List of Adjustment signs.

The Munroe Inspection Technique scores were divided into three categories, the scores falling between 0 and 10 indicating relatively few Rorschach signs of maladjustment, the scores between 11 and 15 revealing relatively moderate Rorschach signs of maladjustment, and scores of 16 and over representing relatively many Rorschach signs of maladjustment. The corresponding job satisfaction scores were tabulated and the analysis of variance technique was applied to ascertain if the scores were significantly different among the three categories of Rorschach adjustment. No significant differences were discovered to exist among the job satisfaction scores of these three categories of Rorschach adjustment (Table VII). Tests of significance utilizing Chi-square also revealed no relationship between Munroe Inspection scores (Table VIII). Analysis of variance and chi-square procedures were utilized in addition to the Pearson product-moment correlation inasmuch as there might have been some doubt about the Munroe Inspection List as a continuous measure of Rorschach adjustment.

Job Satisfaction Scores and Munroe Inspection List Categories

The following description of results pertains to the separate categories on the Munroe Inspection List and their correlations with job satisfaction scores. In some cases, arbitrary weights have been assigned to specific entries for each category used, in order to calculate product-moment correlations. For the biserial correlations, certain groupings of entries under each category were deemed arbitrarily right and others wrong, but only for purposes of calculation. Appendix B should be consulted for these arbitrary weightings and determinations.

TABLE VIII

JOB SATISFACTION SCORES OF 100 CLERKS SHOWING RORSCHACH SIGNS OF MALADJUSTMENT ON THE MUNROE INSPECTION LIST

Job Satisfaction Scores	Rorschach Signs of Maladjustment		
	Relatively Few (0 to 10)	Relatively Moderate (11 to 15)	Relatively Many (16 and over)
18 to 28	12	17	14
14 to 17	10	13	10
0 to 13	6	5	3

Chi-square = 3.26 4 degrees of freedom
Not significant at 5% level

The coefficients of correlation between job satisfaction scores and the Munroe Inspection List categories have been indicated in Table IX. No one of these correlations was statistically significant. There was no evidence, then, for any relationship between the individual Munroe Inspection List categories and job satisfaction scores of routine clerks.

TABLE IX

CORRELATION COEFFICIENTS BETWEEN JOB SATISFACTION SCORES AND MUNROE INSPECTION LIST CATEGORY ENTRIES

Munroe Inspection List Categories	Pearson Product Moment Correlations	Biserial Correlations
Color to Movement	.02	−.07
CF:FC	−.07	.00
FC	.06	.03
FM:M	−.06	−.11
M	.04	.04
Total Color	—	.10
Total Movement	—	−.13
FK, Fc	—	.05
F%	—	.01
Range	—	.05
Popular	—	.05
Dd	—	−.01
W	—	.13

Job Satisfaction Scores and the Combination of Munroe Inspection Scores with Strong Vocational Interest Scores.

It was desirable to ascertain whether certain combinations of Rorschach responses and vocational interests distinguish routine clerks who had satisfied scores from those whose scores indicated indifference to or dissatisfaction with their work. There was no significant difference in the number of routine clerks with Strong clerical interest scores of 40 or above and Munroe Inspection scores of 16 or above who had job satisfaction scores of 18 or above, on the one hand, and those with the same combination of Strong and Munroe scores who had job satisfaction scores of 17 or below, on the other. There was no evidence that job dissatisfaction or indifference of routine clerks who possessed interests similar to those of successful office workers was associated with Rorschach responses evaluated by the Munroe List as indicative of relatively many signs of maladjustment (Table X).

VOCATIONAL INTERESTS AND RORSCHACH RESPONSES

Vocational Interest Scores and the Davidson List of Adjustment Signs.

The correlation coefficient between the Strong office worker interest scores and the total number of Davidson signs of Rorschach adjustment was −.54, a significant correlation. The possession by routine clerks of vocational interests similar to those of successful office workers was associated with a low number of Rorschach signs of adjustment, as evaluated by the Davidson List.

Vocational Interest Scores and the Munroe Inspection List

The correlation coefficient between the Strong clerical interest scores and the Munroe Inspection scores was .33, which

TABLE X

JOB RATINGS OF 100 CLERKS WHO POSSESSED OR DID NOT POSSESS THE COMBINATION OF STRONG CLERICAL INTEREST SCORES OF 40 OR ABOVE AND MUNROE INSPECTION SCORES OF 16 OR ABOVE

	Satisfied (18 and above)	Dissatisfied and Indifferent (17 and below)
Pattern	12	10
No Pattern	41	37

Chi-square = .027 1 degree of freedom
Not significant at 5% level

TABLE XI

DISTRIBUTION OF STRONG CLERICAL INTEREST RATINGS MADE BY 100 CLERKS SHOWING RORSCHACH SIGNS OF MALADJUSTMENT ON THE MUNROE INSPECTION LIST

Clerical Interest Ratings	Relatively Few (0 to 10)	Relatively Moderate (11–15)	Relatively Many (16 and over)
A and B+ (40 and over)	13	34	22
B, B−, C+, C (39 and less)	15	11	5

Chi-square = 9.52 2 degrees of freedom
Significant at 1% level

was significant at the 1 percent level. The partial correlation coefficient between the same two factors when job satisfaction scores was held constant was the same, .33, again significant. The possession of interests similar to those of successful clerks tended to be associated with Rorschach responses evaluated by the Munroe List as indicative of many signs of maladjustment. This conclusion agreed with that reached in connection with the relationship between the Davidson List of signs of adjustment and the Strong clerical interest scores. The presence of the tendency for high clerical interest scores to be associated with high Munroe Inspection scores was also shown by the chi-square technique (Table XI).

Strong Vocational Interest Scores and Munroe Inspection List Categories.

The following description of results refers to the separate categories on the Munroe Inspection List and their correlations with the Strong clerical interest scores. For the arbitrary weights and the arbitrary assignment of right and wrong answers for purposes of computation, Appendix B should be studied.

The coefficients of correlation between Strong clerical interest scores of routine clerks and the individual Munroe Inspection List categories have been indicated in Table XII.

In the Klopfer scoring system, a response was scored as "FC" if definite form was fused with color, and a "CF" score was assigned where the form was indefinite and the color important (28). The product moment correlation between the entries for the Munroe Inspection List category CF:FC and scores on the clerical interest scale of the Strong Blank was −.41 while the biserial correlation coefficient was −.52. The differences in correlation coefficients here and below, while not great, might be attri-

TABLE XII

CORRELATION COEFFICIENTS BETWEEN STRONG VOCATIONAL INTEREST SCORES AND MUNROE INSPECTION LIST CATEGORY ENTRIES

Munroe Inspection List Categories	Pearson Product Moment	Biserial
Color to Movement	.09	−.06
CF:FC	−.41	−.52
FC	.27	.40
FM:M	−.40	−.50
M	.55	.53
Total Color	—	−.02
Total Movement	—	−.09
FK, Fc	—	.11
F%	—	−.03
Range	—	.16
Popular Responses	—	.23
Dd	—	−.03
W	—	.14

buted to the probable lack of normality resulting from the arbitrary assignment of weights for the calculation of the product moment correlations. The higher the score on the Strong clerical interest scale, the greater was the tendency of routine clerical workers to give preponderantly indefinite form-color (CF) in preference to definite form-color (FC) responses to the Rorschach ink blots.

The product moment correlation between the entries for the Munroe Inspection List category FC and scores on the clerical interest scale of the Strong Blank was .27 which was significant at the 1% level. The biserial correlation was .40. The higher the Strong clerical interest scores of routine workers the greater was the tendency for the less frequent use of definite form-color (FC) responses in the Rorschach records.

A score of FM referred to the spontaneous response by a subject in which he reported perceiving an animal in action or in a live posture, while M applied to responses embodying the concept of a living being in human or human-like action. The product moment correlation coefficient between the entries for the Munroe Inspection List category FM:M and scores on the clerical interest scale of the Strong Blank was −.40 which was significant, while the biserial coefficient was −.50. These correlations revealed that, for routine clerks, high Strong clerical interest scores tended to be associated with a preponderant use of animal action (FM) responses over human action (M) responses.

The product moment correlation coefficient between the entries for the Munroe Inspection List category M and scores on the clerical interest scale of the Strong Blank was .55 while the biserial coefficient was .53. In this sample of routine clerks, high scores on the clerical interest scale of the Strong Blank tended to be associated with infrequent use of human action (M) responses.

There are ten popular responses in the Klopfer system, described in his manual (28). The biserial correlation coefficient between the entries for the Munroe Inspection List category popular responses and scores on the clerical interest scale of the Strong Blank was .23, significant at 5% level. There was a slight but significant relationship between the lack of use of four or more popular responses and the possession by routine clerks of interests similar to those of successful office workers.

Intercorrelations among Certain Rorschach Factors

Davidson List of Adjustment Signs and the Munroe Inspection Technique.

The Davidson List of signs of adjustment was introduced to ascertain the extent to which another objective method of assessing Rorschach adjustment would yield results similar to those of the Munroe Inspection Technique. The product moment correlation coefficient for the two measures was −.764, demonstrating a high relationship. A high Munroe score (many Rorschach responses considered signs of maladjustment) strongly tended to be associated with a low Davidson score, representing the absence of Rorschach signs of maladjustment. The correlation coefficients of each measure with job satisfaction and vocational interest scores tended to agree.

The Munroe Inspection List Categories.

For several of the categories of the Munroe Inspection List which correlated significantly with the Strong clerical interest scores, intercorrelations were calculated, using the product-moment

and tetrachoric methods. The arbitrary weights and assignments of right and wrong answers are shown in Appendix B. These intercorrelations were essential for arriving at a multiple correlation coefficient for predicting Strong clerical interest scores from a combination of five Rorschach factors (Table XIII). The significant relationships shown in Table XIII indicated that:

1. The greater the preponderance of indefinite form-color (CF) responses to definite form-color (FC) responses, the smaller was the number of definite form-color (FC) responses of routine clerks.

2. The greater the predominance of indefinite form-color (CF) responses over definite form-color (FC) responses, the more infrequent was the use of human action (M) responses by routine clerks.

3. The greater the predominance of animal action (FM) responses to human action (M) responses, the smaller was the number of human action (M) responses.

4. The smaller the ratio of animal action (FM) to human action (M) responses, the greater was the tendency for routine clerks to give four or more popular responses in their Rorschach record.

5. The smaller the number of human action (M) responses, the smaller was the tendency for routine clerks to give four or more popular responses in their Rorschach records.

Multiple Correlation Between Strong Vocational Interest Scores and Munroe Inspection List Categories

Utilizing the following five categories on the Munroe Inspection List, CF:FC, FM:M, FC, M, and Populars, a multiple correlation coefficient of .72 with Strong Clerical Interest Scores was calculated from their tetrachoric correlations. The iterative technique, described in an Army Air Forces research publication edited by R. L. Thorndike (56), was utilized for predicting Strong Interest Scores. This correlation, corrected for shrinkage, was .70.

Rorschach Responses of Routine Clerks

The average number of the total Rorschach responses of the routine clerks was 21.4, with a standard deviation of 8.7. Lindner's group of 100 prison inmates averaged 20.4 responses (33). Hertzman's 100 college students had 25.1 responses as their mean (24). The mean number of responses for scientists and technicians was 21.0, and 18.2 respectively (47). An unselected group of 34 adults, age range 26 years to 58 years, averaged 30.9 responses (19).

The percentages of the responses distributed among the Rorschach location categories (W, D, d, Dd, and S) for the 100 routine clerks, and the 34 unselected adults tested by Harrower-Erickson and Steiner (19) are shown in Table XIV. The definitions and significance of these Rorschach responses are in Klopfer's manual (28). No significant differences were found between the percentages of Rorschach location responses used by each group.

The percentages of the responses distributed among the Rorschach determinant responses (M, FM, m, k, K, FK, F, Fc, c, C′, FC, CF, C) for the 100 routine clerks and the 34 unselected

TABLE XIII

Correlation Coefficients between Munroe Inspection List Categories*

	CF:FC	FM:M	FC	M	Popular Responses
CF:FC		.07 *.02*	−.31 *−.54*	−.32 *−.36*	— *−.07*
FM:M			.00 *.01*	−.41 *−.80*	— *−.22*
FC				.06 *−.03*	— *.14*
M					— *.23*

* The italicized coefficients were computed by the tetrachoric method while the others were calcuated by the product moment method.

TABLE XIV

RORSCHACH LOCATION RESPONSES OF TWO GROUPS OF ADULTS

Location Responses	Kates: 100 Routine Clerks	Harrower-Erickson and Steiner: 34 Unselected Adults	$\frac{D}{\sigma_D}$
	Percentage	Percentage	
W	42.1	31.8	1.1
D	44.5	48.1	0.4
d	4.7	12.8	1.3
Dd	7.6	5.1	0.5
S	0.2	2.4	0.8

adults are also shown (Table XV). The definitions and significance of these Rorschach determinant responses can be found in Klopfer's manual (28). The only significant difference was in the percentage of animal action (FM) responses used by each group. The other percentages did not reveal significant differences. The routine clerks tended to utilize significantly more animal action (FM) responses than the other adults. This difference might be due to the dissimilarity in the inquiry procedures. Individual inquiries were conducted with the clerical group while the unselected adults received a group inquiry.

TABLE XV

RORSCHACH DETERMINANT RESPONSES OF TWO GROUPS OF ADULTS

Determinant Responses	Kates: 100 Routine Clerks	Harrower-Erickson and Steiner: 34 Unselected Adults	$\frac{D}{\sigma_D}$
	Percentage	Percentage	
M	12.2	9.1	0.5
FM	25.3	5.5	3.5
m	1.7	1.8	0.1
k	1.6	1.1	0.2
K	1.7	1.4	0.1
FK	0.8	2.7	0.7
F	33.7	54.3	1.9
Fc	4.9	4.2	0.2
c	1.3	4.1	0.8
C′	2.5	2.1	0.1
FC	4.4	7.0	0.6
CF	9.3	6.5	0.8
C	0.0	0.2	0.9

Chapter V

INTERPRETATION OF RESULTS

Job Satisfaction

The degree of dissatisfaction expressed by these routine clerical workers is noteworthy when contrasted with typical results for adults in general (25). Many of the clerical workers were barely satisfied with their work while a goodly proportion were either dissatisfied or indifferent. Comparison with other investigations (42, 64) indicates that this amount of job dissatisfaction is fairly typical of clerks. Wrenn studied the job satisfaction of college graduates who were engaged in many occupations (64). He discovered that 19 percent were dissatisfied with their jobs in contrast to the 52 percent of the clerical workers in his group who were dissatisfied (64). In another survey, two clerical groups numbering 117 and 102, were satisfied in the proportion of 50 percent and 51 percent respectively (42). The results obtained in the writer's study were strikingly similar to the job satisfaction results described above.

Using the same scale and measuring satisfaction with nursing Nahm ascertained that the mean satisfaction score of 428 subjects was 21.8 and that the standard deviation was 2.86 (41). A heterogeneous sampling of 309 subjects, representative of a small community, averaged 20.01 points (25). (This mean satisfaction score was calculated from two frequency distributions.) The mean satisfaction score of 154 engineering students was 21.06, standard deviation 2.98 (3). The mean satisfaction score of the 100 routine clerks under present investigation appears to be significantly below that reported in the above investigations. In addition, the percentage of satisfied clerks found in this investigation is lower than that found in many other investigations (17, 18, 25).

Workers on higher occupational levels were found to be more satisfied than those on the lower levels (25, 42, 53). It may be presumed that one of the causes for this comparative lack of work satisfaction was the relatively low occupational status of government clerical workers. Associated with this feature were their lower earnings. Probably the higher mean score of the 17 clerks in Hoppock's study (25), that of 21.52, was due to the difference in economic conditions. This last study was conducted during the depression years, 1932-1933. It may be that during depression years workers are happy to hold any job, while in prosperous years they are more dissatisfied when they eye the more lucrative positions. Perhaps the vocational aspiration levels of these clerks were pegged so high as a consequence of the urge to rise in our society that dissatisfaction with what might actually be suitable work ensued unjustifiably.

The type of work demanded of these clerks affords another clue to their dissatisfaction. The work, which was routine, did not demand much individual judgment or initiative, afforded a dearth of social contacts, and required, above all, the ability to take direction. Dodge had shown that the successful routine clerical workers displayed these characteristics. Assuming that the duties of the work did not present any difficulties to the clerks in the matter of personality requirements, then it is surprising that these clerks did show so much dissatisfaction. Either these clerks' personality characteristics were at variance with those demanded by the job, or having personality traits characteristic of routine clerks is not of cardinal importance for the existence of a high degree of job satisfaction.

There is no evidence to support a relationship between the number of years of schooling and the degree of job satisfaction. The number of years of schooling has been used by Wesman to validate his Personnel Classification Test (62). It has been shown by Pond and Bills that years of schooling correlated .50 with in-

telligence test scores of clerks and other workers (43). Due to the broadening of educational opportunity, there is probably greater correspondence now between years of schooling and intelligence than when Pond and Bills completed their study. Young reported that workers of superior intelligence might be bored by repetitious tasks but on the other hand, they were often able to arrange their work so that it afforded them relief from monotony (65). Assuming that the number of years of schooling was a rough measure of intelligence, the inference might then be made that intelligence and job satisfaction of clerical workers are not related. This inference might be applied to all clerical workers utilizing as evidence Uhrbrock's (57) results and the above mentioned studies

Job Satisfaction and Vocational Interests

There seemed to be slight evidence that, in routine clerical workers at least, job satisfaction scores were positively related to clerical interest scores on the Strong Blank. The product moment correlation (+.21) was significant at the five percent level. Breaking the scores into meaningful categories as suggested by Strong failed to reveal any evidence of a relationship between letter ratings or numerical scores on the Strong clerical interest scale and being satisfied with, indifferent to, and dissatisfied with routine clerical work. The lack of demonstrated significant relationship between job satisfaction and vocational interests may be a function of the lowered sensitivity of one or both of the tests. Apparently, the clerical scale of the Strong Vocational Interest Blank was of slight value in distinguishing those who were content with their work.

Two additional observations can be made with regard to job satisfaction and vocational interests: the measure utilized in evaluating job satisfaction may have been faulty, and the differences between Strong's criterion group and the 100 routine clerks may have contributed to a lack of a demonstrated relationship. Hoppock (25) and Strong (52) both stated that more satisfactory measures of job satisfaction need to be constructed. In view of the fact that most workers reacted to their situations as a whole, it is felt that the blank utilized was more adequate than many others. It was of importance for this study to obtain a self-evaluation of satisfaction which this blank again provided. The self-evaluation of work contentment could be influenced by many factors extraneous to the work situation, as Kornhauser indicated (29). Some would not be adept at estimating how they actually felt about a job or would not translate their feelings adequately when the job satisfaction questionnaire was laid before them. Some degree of self-deception or rationalization could be operative. While the workers might like clerical work in general, the conditions peculiar to their current employment might so color their thinking that they would evaluate themselves as dissatisfied. Hence, it is conceivable that individuals might receive A or B+ ratings on the clerical scale of the Strong Blank, might like routine clerical work greatly, and yet might express indifference to or dissatisfaction with their job.

It must be recalled that the group upon which Strong standardized his office worker scale was more heterogeneous than this group and earned significantly different scores and ratings on the clerical scale. Approximately one-third of Strong's group were clerks who could be termed administrators having little in common with routine clerical workers. In addition, the groups were not strictly comparable due to the differences in geographic origin, with Strong's group coming from many different parts of the country. In the group of 100 routine clerks, there might have been many who were engaged in clerical work because of economic circumstances despite lack of interests similar to those of clerical workers. Moreover, the possibility exists that the Strong office worker scale was not particularly suitable for routine clerks inasmuch as Strong attempted to establish norms for all types of office workers, including routine clerks. On the other hand, these significant differences should not be construed as impugning the validity of the clerical scale of the Strong Blank. These differences support the conclusion that office workers who originate from one geographic area and who carry on routine work differ significantly in their vocational interests from Strong's criterion group, represented by

workers throughout the United States and distributed among all types of clerical workers. Strong has objected to the use of different norms for separate groups within one occupation (52). He pointed out that his norms have been based upon a more representative occupational sampling, usually far more numerous. In treating the subjects' scores on the clerical scale, the point of reference (that of similarity of interests to those of successful office workers, including administrative clerical workers from all parts of the country) must be kept in mind. The thought cannot be lightly dismissed that an occupational scale based on routine clerks as the criterion group might so reshuffle the scores on the Strong Blank that greater correspondence would be exhibited between these scores and job satisfaction. This type of scale would require a population representative of routine clerks throughout the country and would form the basis of another study especially if carried out coincidentally with personality and aptitude tests.

Certain other facts may help in understanding why vocational interest scores were of slight value in distinguishing the more satisfied clerks from the less satisfied ones. Workers who possessed mechanical skills have been found to be more interested in the techniques, procedures, and products of their work than were unskilled workers, who gave predominant importance to the working environment (13). Roethlisberger and Dickson have pointed out, too, that unskilled workers were more attentive to work conditions than supervisors, the latter being more interested in what their work duties demanded than in their environmental conditions (48). Where personal talents and skills are challenged or demanded by a job, it appears likely that correspondence of interests to those of other successful workers in the occupation would be significantly associated with job satisfaction. The satisfaction of achieving something difficult, of expressing one's skills and abilities, and of being able to deal with tasks successfully and constructively has been related to the development of vocational interests. Carter has reasoned that the individual attempted to identify himself with specific occupational groups whose activities he could successfully handle (7). Bordin, essentially agreeing with Carter, has stated that the individual conceived of himself in terms of occupational stereotypes whose requirements he satisfyingly and successfully fulfilled and that a change in this self-concept resulted in a change of vocational interests (5). It is possible, then, that the professional and mechanical occupations would reveal significant relationships between the possession of the related vocational interests and job satisfaction. Further research is desirable, in this matter, to ascertain if such a relationship exists between vocational interests and job satisfaction and to throw light upon this hypothesis. No study, with the possible exception of Lorimer's (34) has yet validated this plausible and logical relationship. But for an occupation such as routine clerical work, the nature of the work was not challenging and little opportunity existed, generally speaking, to achieve something difficult. Not too much correspondence between interests similar to those of office workers and job satisfaction should exist. The intrinsic nature of clerical work contributed relatively little to job satisfaction, when viewed according to the aforementioned standpoint.

It is vital, now, to examine what practical criterion of validity Strong used for his test. He stated:

> Because we had no adequate measure of satisfaction in their work of the men in the follow-up studies to be reported below, we have been forced to content ourselves with assuming that "continuance in an occupation" is a measure of "satisfactory adjustment" (52, p. 387).

Using this criterion, continuance in an occupation, Strong succeeded in validating his blank. Strong declared, however, that continuance in an occupation could not be accepted as the full equivalent of job satisfaction because many dissatisfied workers were not free to leave their employment. It may perhaps be found that the clerical scale of the Strong Blank is more successful in predicting those who will continue in clerical work rather than those who will be satisfied with the occupation. This last statement has not been demonstrated in this study, but these results combined with Strong's, make it a reasonable conclusion. It is essentially a more justifiable conclusion than stating that job satisfaction may be predicted from vocational interest scores, which this study has found to be of questionable accuracy. It can probably be stated that all Strong interest scores could predict continuance in an occupation, with Strong's own data as proof. It is unwarranted to say that men will be satisfied with their jobs if their interests are similar to those of men successfully engaged in such work. This hypothesis still remains unproved even for the professions, despite its plausibility. *As a consequence of the results contained herein, and a reexamination of Strong's work, the utility of the Strong Blank may be defined more precisely as indicative of an individual's continuance in an occupation.*

Routine clerical workers with high scores on the Strong Blank may have been attracted to their work as a result of those interests. However, for routine clerical jobs, possession of interests similar to those of successful office workers, as has been seen, was not an important factor contributing to job satisfaction. A whole

complex of factors, in and away from the job, of which vocational interest is only one may have combined to produce satisfaction. Thus while clerical work may have attracted individuals who had high clerical scores on the Strong Blank, it did not insure that job satisfaction would follow.

Another possibility must be taken into account. Some of the clerks with high scores on the Strong clerical scale may have had primary vocational interests in other vocational areas. The presence of competing primary interests may have caused a diminution in the degree of job satisfaction experienced by clerical workers who had high Strong clerical interest scores. These competing interests may not have found fulfillment in what the clerks were working at and may have caused a lowering of job satisfaction scores. Research is necessary to ascertain whether two competing and apparently equally strong interests prevent the gaining of satisfaction from the pursuit of one of these occupations.

Increasing importance has been assigned to vocational interest patterns rather than scores on single scales. Strong and Darley suggested that guidance should not rely upon single interest scale scores, but should have as its basis scores earned within separate interest patterns. Possibly if the Strong Vocational Interest Blanks had been scored according to interest patterns, there might have been more correspondence with job satisfaction scores. This possibility should be investigated for its practical import to guidance and for determining the comparative value of single scales as compared with interest patterns.

Rorschach Adjustment

The evaluation of the clerks' Rorschach responses using the Davidson signs resulted in mean scores that permit conflicting interpretations. When compared with Davidson's original group (10), there is a wide difference in the number of adjustment signs, while the groups that Margulies (35) tested do not appear to be much different. The significance of differences between the groups was not tested because both Margulies' and Davidson's groups were composed of children and because only 16 of the 17 Davidson signs were utilized in evaluating the Rorschach responses of the clerks.

The Munroe Inspection Technique seems to demonstrate clearly that the clerks exhibited more Rorschach signs of maladjustment when compared with college students, artists, scientists, and technicians. The Munroe Technique presumably affords a fairer appraisal than the Davidson List inasmuch as the compared groups were composed of adults. When so considered, the results agree with those of Dodge (11) who found that the successful routine clerks considered themselves more ill at ease in social contacts, less willing to accept responsibility, and more dependent upon others. According to standard Rorschach interpretation these traits would be among those contributing to scores for maladjustment. While the clerks had many Rorschach signs of maladjustment, it is possible that these traits were ones that aided them in adapting to their work. Without these traits, it is conceivable that these routine clerks might have experienced difficulty in accepting the conditions of their work. In his study of 142 psychoneurotic ex-soldiers, Pratt revealed that there was a definite tendency to enter clerical work after having failed to adjust to other types of employment (44). Clerical work was also reported to have helped relieve their symptoms (44). Another suggested possibility is that clerical work is a refuge of individuals with certain characteristics. These deductions would apply to routine clerical workers and would not be descriptive of administrative clerks, or clerks whose jobs entail extensive public contact.

Job Satisfaction and Rorschach Adjustment

There was no apparent relationship between the degree of job satisfaction and scores on either of the objective

Rorschach measures designed to appraise adjustment. On the basis of the results of this study, it can be stated that expressions of job satisfaction had no relationship to Rorschach signs of adjustment or maladjustment of routine clerical workers. Utilization of the Rorschach record is therefore not indicated as a means of predicting job satisfaction.

Two alternatives with regard to Rorschach evaluation can be considered at this point.

1. Considered from this viewpoint, the Rorschach Test might be deemed invalid, for it has failed to meet this particular test of validity. It must be recognized that for these routine clerks no positive relationship has been demonstrated between degree of job dissatisfaction and Rorschach signs of maladjustment, either estimated or measured by any method. There has been little research that has decisively sustained the view that job dissatisfaction and maladjustment are associated. A conclusion other than that of the invalidity of the Rorschach may be plausible.

2. It may be that in routine clerical work, employees who demonstrate many Rorschach signs of maladjustment should not be expected as a consequence to evince dissatisfaction with their work. The occupation of routine clerical work may offer few specific adjustment difficulties which should yield a correlation between dissatisfaction and Rorschach signs of maladjustment. Routine clerical work demands that social contacts be kept at a minimum, that initiative (if existent) be stifled and that dependency be fostered. It can, therefore, be envisioned without difficulty that the degree of job satisfaction need not go hand in hand with Rorschach signs of maladjustment. In either case, the lack of utility of the Rorschach Test as an instrument for selecting satisfied workers or for choosing a satisfying occupation has been demonstrated for at least one occupation.

Job Satisfaction and Munroe Inspection List Categories

Not one of the following categories on the Munroe Inspection Technique proved to be significantly correlated with the degree of job satisfaction: Color: Movement, CF:FC, FC, FM:M, M, Total Color, Total Movement, FK and Fc, F%, Range, Populars, Dd, and W. Additional evidence is thus given in support of the conclusion that, for routine clerks, the Rorschach performance cannot give any clue to the presence of job satisfaction.

The reasons for the feeling of satisfaction with routine clerical work must be sought elsewhere than in the Rorschach protocol and vocational interest inventories. It is possible that attitudes of job satisfaction and dissatisfaction are dependent on whether or not the work situation fulfills the social demands clerks make of their work. As Roethlisberger and Dickson have stated, the factors determining satisfaction in work perhaps could be better understood in the light of existing social relations within the plant than in terms of personal situations (48). Two additional areas of research are suggested. The social relations that the employees enjoyed with their co-workers should be studied intensively by observation and rating procedures. The association between the degree of good relations enjoyed by routine clerks and the self-evaluation of job satisfaction should be ascertained. Within any work situation, the extent of attraction and repellence each worker has for the others should be correlated with job contentment. Finally, the social needs and the demands that routine workers make of their jobs should be explored and the degree of their fulfillment should be studied in relation to job satisfaction and Rorschach responses.

Vocational Interests and Rorschach Adjustment

Routine clerks who had interests similar to those of office workers tended to show fewer signs of adjustment in their Rorschach responses as evaluated by the Davidson List of signs of adjustment than clerks who did not possess similar interests. The Munroe Inspection scores confirmed the findings of the Davidson measure. This result delineates more precisely the relationship between Rorschach signs of maladjustment, which are apparently many in number for routine clerks, and the possession of vocational interests similar to those of office workers. It signifies that those clerks whose vocational interests are most simi-

lar to office workers are largely responsible for the relatively high number of Rorschach signs of maladjustment and the relatively low number of Rorschach signs of adjustment. The routine clerks with the greater number of Rorschach signs of maladjustment were perhaps inclined to develop vocational interests which offered fewer specific obstacles to their growth and adjustment. Presumably, the development of interests similar to those of office workers provided satisfying solutions in their daily adjustment problems for the routine clerks with relatively many Rorschach signs of maladjustment.

Job Satisfaction Related to a Combination of Vocational Interests and Rorschach Signs of Maladjustment

There was no evidence to support the following hypothesis: work dissatisfaction and indifference might be attributed to the many signs of maladjustment manifested in the Rorschach responses of routine clerks having interests most similar to those of successful office workers. The possession of many Rorschach signs of maladjustment did not detract from or add to the job satisfaction of routine clerks possessing interests most similar to those of successful office workers.

Vocational Interests and Rorschach Responses

Routine clerical workers who possessed interests similar to those of other office workers did tend to have a pattern of Rorschach responses associated with these vocational interests. Thus, the fourth hypothesis set up for testing was confirmed.

Routine clerical workers enjoying similar interests to those of successful office clerks tended—

1. To use indefinite form and color (CF) in preference to definite form-color (FC) in their Rorschach responses.
2. To give what Rorschach manuals describe as an insufficient number of Rorschach responses based on definite form and color (FC).
3. To see more animal action (FM) than human action (M) responses in the Rorschach Test.
4. To employ human action (M) responses in their Rorschach record which were rated too infrequent by the manuals.
5. To the infrequent use of popular responses.

The above five Rorschach signs of presumed maladjustment were related to the possession by routine clerks of vocational interests similar to those of successful office workers. The other Rorschach signs of maladjustment did not appear to be related to the possession by routine clerks of vocational interests similar to those of successful office workers.

Rorschach Responses of Routine Clerks

The comparison of the Rorschach responses of the routine clerks with those of a group of unselected adults revealed much similarity with the exception of the significantly greater percentage of animal action (FM) responses of the routine clerks. There was no significant difference between the human action (M) responses of the two groups. The ratio of animal action (FM) to human action (M) responses in favor of animal action (FM) responses was greater in the case of routine clerks. This predominance of animal action (FM) over human action (M) responses has been considered by Rorschach examiners to be indicative of greater immaturity. This tendency for the routine clerks to use more animal action (FM) than human action (M) responses agreed with the results of the Munroe Inspection Technique.

Munroe Inspection List and Davidson List of Signs

The high correlation (−.76) between the two objective Rorschach measures of adjustment signifies that both were measuring to a great extent a similar pattern or similar patterns. Much of this correlation may be ascribed to the agreement among the items of the lists. The David-

son List is not as extensive as the Munroe Technique nor are there any such fine distinctions in the weightings assigned to differences in quality and quantity of Rorschach responses.

Prediction of Clerical Interests from Munroe Inspection List Categories

The multiple correlation was .72 between clerical interest scores on the Strong Blank and the following five Rorschach categories on the Munroe Inspection Technique: CF:FC, FM:M, FC, M, and Popular. This represented the correlation between the Strong clerical interest scores and the best estimates of these Strong scores made from a linear combination of the aforementioned five Munroe List categories. The multiple correlation coefficient was .70 after correction for shrinkage. Knowing the entries made for these five Munroe List categories, it would be possible with fair accuracy to predict Strong clerical interest scores of routine clerks. Forty-nine percent of the variance of the vocational interest scores of routine clerks could be attributed to the joint action of these five Munroe List categories. The remaining 51 percent of what made the routine clerks differ in vocational interest scores could be attributed to factors other than these five Munroe List categories.

Vocational Interests and Rorschach Responses: Theoretical Implications

Routine clerks who showed interests similar to those of successful office workers were more likely than others to reveal what Rorschach examiners would call severe personality disturbances. The higher the scores on the clerical scale of the Strong Blank, the more numerous were the signs of personality maladjustment in their Rorschach responses.

According to standard Rorschach interpretation, routine clerks who had interests most similar to those of successful office workers were prone:

1. To impulsive emotional reactions to stimuli (the interpretation of the predominance of indefinite form-color [CF] over definite form color [FC] responses). These clerks had slight conscious control over their emotional reactions to stimuli. Their activities seemed largely determined and provoked by immediate environmental stimuli.
2. To show an inadequate degree of emotional adjustment to outer reality (the interpretation of an infrequent use of definite form-color [FC] responses). These clerks, apparently, were not able to make adequate social contacts with their environment.
3. To be emotionally immature (the interpretation of the predominance of animal action [FM] over human action [M] responses). They were prone to be dependent individuals whose inner strivings were mainly on an immature level.
4. To be unable to accept their own ideas and creations (the interpretation of the infrequent use of human action [M] responses). They did not seem to take their own outlook and ideas seriously.
5. To show a slight incapacity to think along conventional lines (the interpretation of the infrequent use of popular responses). These subjects appeared to show a slight inability to indulge in thinking common to most people.

The section on Rorschach interpretations has been offered with much hesitation, in view of the many unsubstantiated interpretations and varying meanings assigned to the Rorschach scoring symbols by some Rorschach examiners. It has been included only to describe the Rorschach characteristics of routine clerks and the associations of these Rorschach responses with vocational interests and job satisfaction in terms of the more commonly accepted interpretations of Rorschach examiners.

Further Research Suggestions

The relation between the lack of primary interest patterns and job satisfaction should be ascertained. The relation between the lack of primary interest patterns and personality traits

such as those the Munroe Inspection List was intended to assess should be investigated. The three nonoccupational scales of the Strong Vocational Interest Blank should also be related to measures of job satisfaction and personality.

It would be worthwhile to score a group of life insurance salesmen on their own occupational scale and upon scales such as those for office workers or mathematicians, and to relate these scores to the Rorschach categories of the Munroe Inspection List. Mathematicians and life insurance salesmen seem to represent opposite extremes in their social predilections. Will such tendencies be reflected in the Rorschach Test results and the degree of association of Munroe Inspection List categories to interest scale scores?

A developmental or cross-sectional study of young men at ages 17, 19, 21 and 23 using the Rorschach Test and the Strong Vocational Interest Blank would be very worthwhile. Changes in scores on the appropriate interest scales in relation to changes in the several categories of the Munroe Inspection List would help in clarifying the relation of personality patterns to vocational interests.

Another suggestion would envisage the testing with the Rorschach Test and the Strong Blank of students at a business school, clerks who had been on the job between six months and one year, and clerks who had been on the job 5 years or more. Would these groups show progressively higher mean scores on the Strong clerical scale? It would be worthwhile to ascertain whether certain Rorschach factors, apparently associated with the possession of interests similar to those of successful office workers, became more dominant in clerks with greater clerical job experience.

Chapter VI

SUMMARY AND CONCLUSIONS

Problem

The aim of this study was to investigate the vocational interests, Rorschach responses, and job satisfaction of a group of 100 men employed in routine clerical work by the Federal government. The interrelationships among such factors as job satisfaction, vocational interests, and Rorschach signs of maladjustment were sought. Those Rorschach responses which were related significantly to job satisfaction and vocational interests were isolated. The subjects were chosen so that they fulfilled the following conditions: (*a*) permanence and stability of employment; (*b*) similarity of occupation; (*c*) presumably similar general material working conditions; (*d*) restricted salary range; (*e*) employment in a vocation for which a scoring scale had been established on the Strong Vocational Interest Blank.

It was desired, through this study, to ascertain if the following hypotheses were tenable:

1. The job satisfaction of routine office clerks bears a significant positive relationship to the possession of interests similar to those of successful office workers as measured by the Strong Vocational Interest Blank.

2. The job satisfaction of routine clerks is not associated with the number of Rorschach signs of maladjustment.

3. The work dissatisfaction of routine clerks who possess the interests of successful office workers is not related to the number of Rorschach signs of maladjustment.

4. Certain Rorschach responses shown in the Rorschach records of these clerks are significantly associated with the possession of vocational interests held by successful office workers.

Procedure

The 100 routine clerks completed the job satisfaction blank, the Strong Vocational Interest Blank, and the Rorschach Test. The administration of the tests to the subjects took place in groups of four or five. Anonymity was guaranteed to all. Standard procedures were followed with the job satisfaction blank and the Strong Vocational Interest Blank. As for the Rorschach Test, the clerks after being given sets of cards, wrote their responses in special booklets, and separate individual inquiries were conducted for all the protocols.

The Strong Blank was scored with the office worker scale devised by Strong. Scores were computed for the job satisfaction blank. The Rorschach protocols were evaluated by two techniques, the Munroe Inspection Technique and the Davidson List of Signs. Numerical scores were obtained for each list, indicative of the degree of Rorschach maladjustment and adjustment. The relationships between each of the separate measures were obtained through product-moment correlations, biserial correlations, partial correlations, and analysis of variance and chi-square methods. In addition, several of the categories in the Munroe Inspection Technique were related to job satisfaction and to Strong clerical interest scores. Correlations among five of the categories on the Munroe Inspection Technique were computed by product moment and tetrachoric methods. Fi-

nally, a multiple correlation coefficient was calculated for the prediction of the Strong clerical interest scores of routine office clerks from five categories of the Munroe Inspection List.

Findings

The *first hypothesis* was not supported by the results of this investigation. The job satisfaction of routine clerks appeared to have no significant relationship to the scores and letter ratings earned on the clerical scale of the Strong Vocational Interest Blank. The differences between the criterion group used by Strong in standardizing the clerical interest scale and the routine clerks were pointed out. It was suggested that if a vocational interest scale based upon routine clerical workers had been utilized, greater association between the degree of job satisfaction and the possession of the corresponding vocational interests might have been demonstrated. Moreover, other reasons were advanced to support the concept that satisfaction with routine clerical work might not be associated with the possession of the interests of successful office workers. The nature of routine clerical work and the relative lack of demand that it makes on the skills and talents of the incumbents were underscored. A close relationship between job satisfaction and vocational interests was posited for professional and skilled mechanical workers in view of the relative satisfyingness of achieving something creative or difficult. Little such opportunity exists for routine clerks. The presence of competing vocational interests may have caused a diminution in the association between job satisfaction and vocational interests of routine clerks but was not investigated. Vocational interest pattern scores, embracing a family of related occupations, may have shown greater relationship to job satisfaction than single interest scale scores, but this possibility also was not investigated. Attention was directed to the fact that while vocational interests may have attracted some of these routine clerks to their work, other factors may be more important in the occupational choice and job satisfaction of clerical workers than vocational interests.

The *second hypothesis* was confirmed: there was no relationship between job satisfaction and the number of Rorschach signs of maladjustment for routine clerks. Routine clerks may be satisfied with their work despite many Rorschach signs of maladjustment. Apparently whatever is revealed by many Rorschach signs of maladjustment did not prevent routine clerks from deriving satisfaction from their work. The validity of the Rorschach Test was questioned because it failed to distinguish between the satisfied on the one hand and the indifferent and dissatisfied on the other hand. An equally credible alternative was that the reasons for work satisfaction or dissatisfaction in office clerks should not be sought in the psychological context, i.e., in responses to the Strong Vocational Interest Blank and the Rorschach Test, but rather in the social situation, as suggested by recent intensive investigations.

The *third hypothesis* was sustained: the job dissatisfaction or indifference of routine clerks who possessed the interests of successful office workers was not associated with a greater number of Rorschach signs of maladjustment. The presence of many Rorschach signs of maladjustment did not detract from or add

to the job satisfaction of routine clerical workers who have the interests of successful office workers.

The *fourth hypothesis* was supported by the results. There were five Rorschach response categories significantly associated with the possession of vocational interests by routine clerks similar to those of successful office workers.

These five Rorschach signs of maladjustment that were correlated significantly with the possession of vocational interests similar to those of successful office workers included: (*a*) the use of indefinite form-color (CF) responses in preference to definite form fused with color (FC) responses; (*b*) a slight tendency to use an insufficient number of definite form-color (FC) responses; (*c*) a proneness to use predominantly more animal action (FM) than human action (M) responses; (*d*) relatively few human action (M) responses; (*e*) slightly but significantly infrequent use of popular responses.

The Rorschach characteristics of routine clerks appeared to be quite similar to those of the group with which they were contrasted except for the clerks' greater use of animal action (FM) responses. This characteristic was indicated as a Rorschach sign of maladjustment that the clerical group as a whole manifested.

The two measures of Rorschach adjustment, the Davidson List of Adjustment Signs and the Munroe Inspection Technique, were shown to be highly correlated. It was concluded that they were both measuring a similar pattern or similar patterns. The extent to which the two lists arrive at different evaluations of adjustment is a function of their two major differences: the Davidson List is not as extensive, and does not include such fine distinctions in quality and quantity of the Rorschach responses.

Intercorrelations were obtained between several of the Rorschach categories on the Munroe Inspection List, and a multiple correlation coefficient of .70 was computed for the prediction of Strong clerical interest scores from these several categories.

Further supplementary areas of research were delineated and several hypotheses were discussed which still require substantiation.

Appendix A

JOB SATISFACTION BLANK

(After Hoppock, 43)

NUMBER _____

You are asked to help in a scientific study by answering the questions in this blank. Neither your employer nor any of your associates will be allowed to see your answers. Your replies will be added to those of many other people, and only the group totals will be published. Your answers will be worthless unless they are perfectly frank and truthful.

Choose the ONE of the following statements which best tells how well you like your job. Place a mark (X) in front of that statement.

1. ____I hate it.
2. ____I dislike it very much.
3. ____I don't like it.
4. ____I am indifferent to it.
5. ____I like it.
6. ____I am enthusiastic about it.
7. ____I like it more than I could any other job.

Mark one of the following to show how you think you compare with other people.

7. ____No one likes his job better than I like mine.
6. ____I like my job much better than most people like theirs.
5. ____I like my job better than most people like theirs.
4. ____I like my job about as well as most people like theirs.
3. ____I dislike my job more than most people like theirs.
2. ____I dislike my job much more than most people dislike theirs.
1. ____No one dislikes his job more than I dislike mine.

Mark the one of the following which best tells how you feel about changing your job.

1. ____I would quit the job at once if I could get anything else to do.
2. ____I would take almost any other job in which I could earn as much as I am earning now.
3. ____I would like to change both my job and my occupation.
4. ____I would like to exchange my present job for another job in the same line of work.
5. ____I am not eager to change my job, but would do so if I could get a better job.
6. ____I cannot think of any jobs for which I would exchange mine.
7. ____I would not exchange my job for any others.

Mark one of the following to show HOW MUCH OF THE TIME you feel satisfied with your job.

7. ____All of the time.
6. ____Most of the time.
5. ____A good deal of the time.
4. ____About half of the time.
3. ____Occasionally.
2. ____Seldom.
1. ____Never.

Date _____

Appendix B

Arbitrary Weights, and Entries Considered Correct for Biserial and Tetrachoric Correlations (Munroe Inspection List Categories)

Product moment correlation weights

Color:Movement		FM:M		M		CF:FC		FC	
Entries	Weights	Entries	Weights	Entries	Weights	Entries	Weights	Entries	Weights
− − −	1	+ + +	1	+ + +	1	+ + +	1	− −	6
− −	2	+ +	2	+ +	2	+ +	2	−	5
−	3	+	3	+	3	+	3	o	4
o	4	o	4	o	4	o	4		
+	5	−	5	−	5	−	5		
+ +	6	− −	6	− −	6				
+ + +	7								

Entries considered correct for biserial and tetrachoric correlations

Category	Entries Considered Correct		
Color:Movement	− − −	− −	−
CF:FC		−	o
FC		− −	−
FM:M	− −	−	o
M		− −	−
Total Color		− −	−
Total Movement		+ +	+
FK, Fc		− −	−
F%		− −	−
Range	− − −	− −	−
Popular	− − −	− −	−
Dd	+ + +	+ +	+
W			+

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